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A NEW GENUS IN THE CHILOPOD FAMILY DIGNATHODONTIDAE WITH PROPOSAL OF TWO SUBFAMILIES

(CHILOPODA: GEOPHILOMORPHA)

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Graf Attems (1929) in his classic revision of the geophilid chilopods treats the dignathodontids as a subfamily, Dignathodontinae, of the family Geophilidae. He distinguishes this subfamily from the Geophilinae *sens. str.* as follows:

"Labrum in eine obere und untere Lamelle geteilt, die obere bildet das Mittelstück, dessen Zähne nach vorn gerichtet sind, die untere Lamelle bildet Seitenteile oder ist rudimentär. Körper vorn stark verjüngt. Kopf sehr klein." (Attems, *op. cit.*, in the key, p. 158).

Attems' statement in this diagnosis that the teeth of the middle piece of the labrum are directed forward should have been qualified by the fact that he includes in this subfamily the American genus *Agathothus* Bollman in which these teeth are directed caudad as shown in Fig. 1. More recently several other American genera having this characteristic of the labrum have been made known. To this list a new genus to bear the name *Horonia* is added in the present paper. For this group of genera, I here propose a new subfamily, Agathothinae with type-genus *Agathothus* Bollman. The remaining genera of the Dignathodontidae are retained in a subfamily Dignathodontinae *sens. str.* of which the type-genus is *Dignathodon*.

Up to the present the Agathothinae were known only from the Americas where they have been recorded chiefly from the southern United States and Mexico, with one genus, *Araucania*, reported from Argentina. The following key will aid in separating the presently known genera.

## KEY TO GENERA OF THE AGATHOTHINAE

1. Pleurocoxal glands opening through two large pores on each side ..... *Pagotaenia* Chamb.  
 Pleurocoxal pores more numerous, small ..... 2
2. Palpus of second maxillae lacking a true claw, ending in a tubercle ..... *Malochora* Chamb.  
 Palpus of second maxillae ending in a normal claw 3
3. Middle piece of labrum bearing a series of subconical teeth ..... 4  
 Middle piece of labrum bearing a fringe of sub-setiform teeth (fimbriae) ..... 5
4. Claw of prehensors armed at base with a conical tooth; ventral pores in two separated areas on each sternite ..... *Araucania* Chamb.  
 Claw of prehensors not thus armed; ventral pores not in two areas on each sternite ..... *Zantaenia* Chamb.
5. Syncoxite of first maxillae with a lappet on each anterior corner; lateral pieces of labrum covered by the median piece ..... *Horonia*, new genus  
 Syncoxite of first maxillae without such lappets; lateral pieces of labrum with only mesal ends overlapped by the median piece ..... *Agathothus* Bollm.

**Horonia**, new genus

*Description:* Head nearly as broad as long; lacking a frontal suture. Antennae long and filiform.

Labrum with middle piece large, extending entirely across the buccal cavity, its caudal margin bearing a fringe of slender, close-set fimbriae. First maxillae with syncoxite bearing a long lappet on each outer corner, telopodite biarticulate and lacking lappets, coxae of second maxillae weakly united at middle, the claw smooth.

Prehensors with claws when closed not extending appreciably beyond the front margin of the cephalic plate; prosternum unarmed anteriorly, with postcondylic sclerotic lines (raphes) complete; the tarsus and femuroid armed mesally.

The last sternite proportionately long and narrow. Pleurocoxal pores small and numerous, typically opening both ventrally and dorsally.

Anal pores present.

Type-species: *Horonia bella*, new species.

**Horonia bella**, new species

*Description:* General color light orange. Body strongly attenuated caudad, more moderately cephalad; posterior part of body in the holotype depressed or flattened.

Cephalic plate scarcely longer than broad, of form shown in Fig. 2.

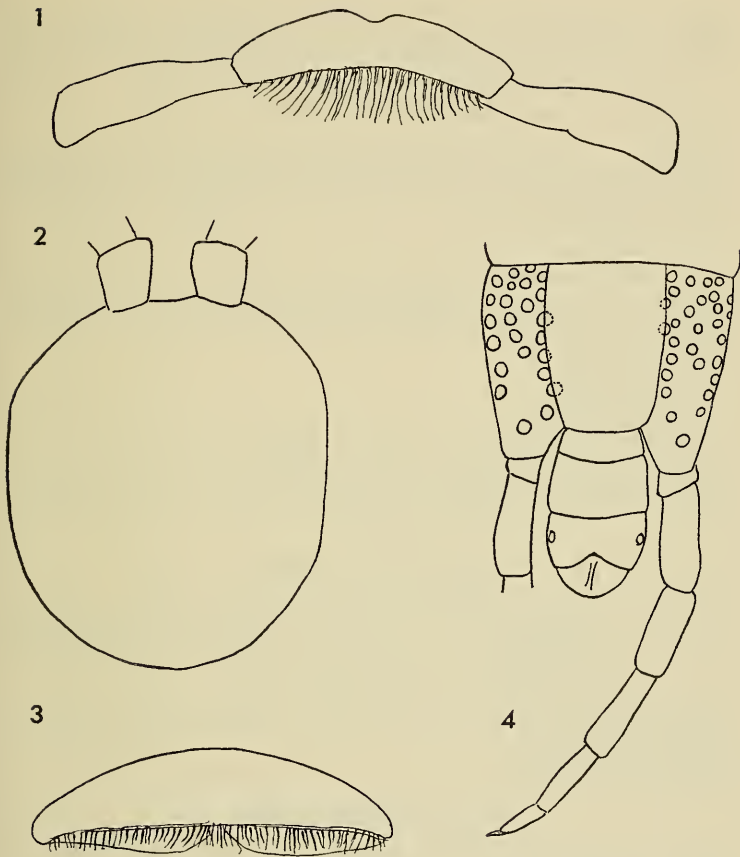


FIG. 1, *Agathothus gracilis* Bollman, labrum. Figs. 2-4, *Horonia bella*, new species. 2) head in outline, 3) labrum, 4) caudal end, ventral aspect.

Antennae long and filiform, their ultimate articles subconical and as long as the two articles preceding it taken together.

Median piece of labrum large, its posterior margin with a fringe or comb of rather short spiniform processes or teeth. Syncoxite of first maxillae bearing at each anterolateral corner a long, forwardly directed papillose lappet; palpus subconical, biarticulate and lacking exterior lappets. Coxae of second maxillae united at middle only by a narrow membranous isthmus which in part shows some polygonal areolae; behind this isthmus deeply notched or incised; claw of the palpus normal and smooth.

Basal plate trapeziform, short and broad. Prehensors a little exposed at sides of cephalic plate behind, its claws when closed scarcely or not at all surpassing that plate anteriorly. Prosternum not armed with teeth on anterior margin; sclerotic lines present and complete. A conical tooth present at base of claw and a similar one at distal end of the femuroid.

Anterior sternites each with caudal margin forming an obtuse angle, the apical portion of which projects into a cavity under the border of the succeeding sternite.

No ventral pores.

Last sternite proportionately long and narrow. Pleurocoxal pores small and independent, numerous and present both above and below (Fig. 3).

Anal pores present.

Pairs of legs, 49.

Length, 38–40 mm.

*Locality:* New Mexico, 13 mi. NE Bernabello. Two specimens collected 17 September 1946, by Stanley Mulaik.

The holotype and paratype at present retained in the Chamberlin collection at the University of Utah.

#### AGATHOTHUS Bollman

*Agathothus* Bollman, 1893, Bull. U. S. Nat. Mus. 46: 166.

———— Chamberlin, 1913, Bull. Mus. Comp. Zool., Harvard 54 (13): 428.

———— Attems, 1929, Das Tierreich 52: 231.

Type-species: *Scolioplanes gracilis* Bollman (Type by original designation and monotypy).

Type-locality: Tennessee.

#### PAGOTAENIA Chamberlin

*Pagotaenia* Chamberlin, 1915, Bull. Mus. Comp. Zool., Harvard 59: 508.

———— Attems, 1929, Das Tierreich 52: 241.

Type-species: *Pagotaenia lestes* Chamberlin (Type by original designation and monotypy).

Type-locality: Mexico, Hidalgo, Guerrero Mill.

#### ARAUCANIA Chamberlin

*Araucania* Chamberlin, 1954, Lunds Univ. Arsskrift, N.F., Avd. 2, 54 (5): 32.

Type-species: *Linotaenia araucanensis* Silvestri (Type by original designation and monotypy).

Type-locality: Chile, Los Muermos.

#### ZANTAENIA Chamberlin

*Zantaenia* Chamberlin, 1960, Proc. Biol. Soc. Washington 73: 240.

Type-species: *Zantaenia idahoana* Chamberlin (Type by original designation and monotypy).

Type-locality: Idaho, Wallace.

MALOCHORA Chamberlin

*Malochora* Chamberlin, 1941, Ann. Entomol. Soc. Amer. 34: 773.

Type-species: *Malochora linsdalei* Chamberlin (Type by original designation and monotypy).

Type-locality: California, Hastings Reservation.

LITERATURE CITED

ATTEMS, CARL GRAF. 1929. Geophilomorpha. Das Tierreich, 52: 1-388.

